

Application No.: 10/693,137
Response to OA dated: April 6, 2005
Response dated: September 6, 2005

In the Drawings:

Please replace the original drawing sheets with the replacement drawing sheets attached herewith. Applicant respectfully submits that the replacement drawing sheets are being provided to correct various informalities in the drawings as originally filed, and that no new matter is being added.

Remarks

The above Amendments and these Remarks are in reply to the Office Action mailed April 6, 2005. A Petition for Extension of Time is submitted herewith, together with the appropriate fee.

I. Summary of Examiner's Rejections

Prior to the Office Action mailed April 6, 2005, Claims 1-26 were pending in the Application. In the Office Action mailed April 6, 2005, the Drawings were objected to because some of the figures therein were hand-numbered. Claims 1-9, 12-20 and 23-26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kampe et al. (U.S. Patent No. 6,854,069, hereinafter Kampe). Claims 10, 11, 21 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kampe in view of Wachtel (U.S. Patent No. 6,847,974), and further in view of Burdeau (U.S. Patent No. 6,868,442).

II. Summary of Applicant's Amendment

The present Response provides replacement drawings sheets for Figures 1 through 18; and amends Claims 1, 12 and 23-36, leaving for the Examiner's present consideration Claims 1-26. Reconsideration of the Application, as amended, is respectfully requested. Applicant reserves the right to prosecute any originally presented or canceled claims in a continuing or future application.

III. Drawings

In the Office Action mailed April 6, 2005, the Drawings were objected to because some of the figures therein were hand-numbered. Accordingly, Applicant is submitting together with this Response a set of replacement drawing sheets, and requests that the original drawing sheets be replaced with those attached herewith. Applicant respectfully submits that no new matter is being added.

IV. Claim Rejections under 35 U.S.C. §103(a)

In the Office Action mailed April 6, 2005, Claims 1-9, 12-20 and 23-26 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kampe (U.S. Patent No. 6,854,069). Claims 10, 11, 21 and 22 were rejected under 35 U.S.C. 103(a) as being unpatentable over Kampe in view of Wachtel (U.S. Patent No. 6,847,974), and further in view of Burdeau (U.S. Patent No. 6,868,442).

Claim 1

Claim 1 has been amended by the current Response to more clearly define the embodiment of the invention therein. As amended, Claim 1 defines

1. *(Currently Amended) A system for high availability clustering, comprising:
a computer that allows a user or application to access a set of resources of various resource types, including application servers, said resources available at said computer or at another computer;
a cluster server that operates at said computer and that allows access to said set of resources;
a resource interface provided by said cluster server that allows the cluster server to communicate with said set of resources;
a plurality of plugins that are plugged into the resource interface to provide a mapping between the system's resource management functions and any resource type-specific functionality, wherein each one of said plurality of plugins provides access to a pool of resources of a particular resource type, and wherein each pool of resources includes a plurality of resources of that particular type;
wherein additional plugins may be included in the resource interface for other resource types; and
wherein the system can be extended by adding additional computers with cluster servers and resource interfaces operating thereon.*

Claim 1, as currently amended, defines a system for high availability clustering, comprising a computer that allows access to a set of resources of various resource types, including application servers. The computer includes a cluster server having a resource interface. The resource

interface includes a plurality of plugins that are plugged into the interface, and that provide a mapping between the system's resource management functions and any resource type-specific functionality. Each of the plugins provides access to a pool of resources of a particular resource type, wherein each pool of resources includes a plurality of resources of that particular type. Additional plugins may be included in the resource interface for other resource types. Applicant respectfully submits that these features are not disclosed or suggested by the cited references.

The advantages of the embodiment defined by Claim 1 include that it provides a uniform, flexible, and extensible high availability framework. As also described in the Specification, the plugins provide a mapping between the framework's resource management abstractions and any resource type-specific way of realizing the particular functionality. For example, as shown in Figure 4, the resource interface may include a WebLogic Server plug-in which interfaces with a JMX interface to provide access to a plurality of WebLogic Server instances. Similarly, a Tuxedo plugin can be used to provide access to a variety of Tuxedo application server instances. Additional third party plug-ins can be provided as necessary to allow access to other application server instances. In this way, the system is easily modified or extended to provide access to other resource types, for example to other types of application server products. Additionally, since each plugin provides access to a pool of resources of a particular resource type, and each pool of resources includes a plurality of resources of that particular type, the system supports high availability of resources among the different application server products.

Kampe discloses a system and method for achieving high availability in a networked computer system. As disclosed therein, the networked computer system includes nodes that are connected by a network. The method includes using high-availability-aware components to represent hardware and software in the networked computer system, managing the components to achieve a desired level or levels of redundancy, and monitoring the health of the networked computer system, including the health of the components and the nodes. (Column 2, lines 38-43). A "component" may be defined as a collection of functionality that can be brought in and out of

service, and managed as a unit. A component may be a combination of hardware and software. It may serve as a unit of redundancy. (Column 6, lines 15-19). Components may be viewed as a fundamental unit of encapsulation, deployment, and manageability. When new applications and devices are added to a networked computer system, they are typically added as new components. (Column 7, lines 30-35). The component integration services include standard management and service methods that may be provided by plug-in components (e.g., device drivers, protocols, applications, etc.) to facilitate the addition of new components to a system. (Column 5, lines 35-40)

The above description appears to suggest that, in Kampe, a networked computer system includes a plurality of nodes, and a component, through the use of hardware and/or software, is a unit that provides a particular functionality. For example, a component may be a device or an application. Some components may be plugged-into the system to facilitate the addition or management of other components. However, the components described therein appear to be components of a single node, and which are plugged into that node. Applicant respectfully submits that Kampe does not appear to disclose or suggest that the components can be application servers, or that a plurality of plugins can be plugged into a resource interface to provide a mapping between the system's resource management functions and any resource type-specific (i.e. application server-specific) functionality. Nor does Kampe appear to disclose or suggest that each one of the plurality of plugins provides access to a pool of resources of a particular resource type, and wherein each pool includes a plurality of resources of that particular type. However, as defined by Claim 1, as currently amended, by providing a framework that allows different resources to be plugged into the cluster, multiple application servers of different type can be plugged-into, and can participate in a clustered manner within a high availability framework.

In view of the above comments, Applicant respectfully submits that Claim 1, as amended, is neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

Claims 12 and 23-26

Claims 12 and 23-26 have been amended similarly to Claim 1 to more clearly define the embodiments therein. Applicant respectfully submits that Claims 12 and 23-26, as amended, are likewise neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

Claims 2-11 and 13-22

Claims 2-11 and 13-22 are not addressed separately, but it is respectfully submitted that these claims are allowable as depending from an allowable independent claim, and further in view of the comments provided above. Applicant respectfully submits that Claims 2-11 and 13-22 are similarly neither anticipated by, nor obvious in view of the cited references, and reconsideration thereof is respectfully requested.

It is also submitted that these claims also add their own limitations which render them patentable in their own right. Applicant reserves the right to argue these limitations should it become necessary in the future.

V. Conclusion

In view of the above amendments and remarks, it is respectfully submitted that all of the claims now pending in the subject patent application should be allowable, and reconsideration thereof is respectfully requested. The Examiner is respectfully requested to telephone the undersigned if he can assist in any way in expediting issuance of a patent.

Enclosed is a PETITION FOR EXTENSION OF TIME UNDER 37 C.F.R. § 1.136 for extending the time to respond up to and including September 6, 2005.

Application No.: 10/693,137
Response to OA dated: April 6, 2005
Response dated: September 6, 2005

The Commissioner is authorized to charge any underpayment or credit any overpayment to Deposit Account No. 06-1325 for any matter in connection with this response, including any fee for extension of time, which may be required.

Respectfully submitted,

Date: September 6, 2005

By: 

Karl Kenna
Reg. No. 45,445

Customer No.: 23910
FLIESLER MEYER LLP
Four Embarcadero Center, Fourth Floor
San Francisco, California 94111-4156
Telephone: (415) 362-3800